

EPA Tools and Resources Training Webinar: Introducing EPA'S Chemical Exposure Knowledgebase

Kristin Isaacs, Sakshi Handa & Katherine Phillips
US EPA Office of Research and Development (ORD)

December 7, 2023

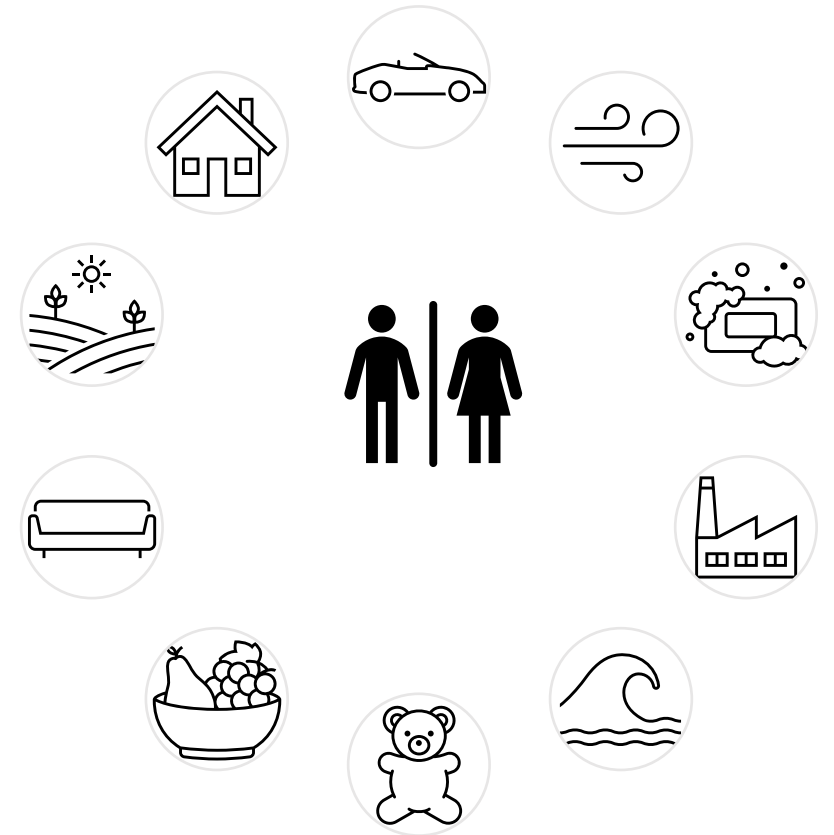
Presentation Outline

- **Problem:** Chemical use data are needed for understanding and quantifying human exposures
- **Overview:** EPA ORD efforts to collect and organize chemical use data from public documents
 - Background and definitions
 - Available data, recent updates, and publications
- **Demonstration:** The ChemExpo Knowledgebase – a new, public tool for searching, exploring, and downloading curated information about how chemicals are used in commerce, including presence in consumer products
- **Impact:** Examples of how chemical use data support decision-making

Problem

- Humans interact with thousands of chemicals on a regular basis
- We often don't know precisely...
 - ...which chemicals we contact in our everyday lives
 -nor the quantities of those chemicals
- ***Chemical conditions of use*** in commerce impacts how and how much humans are exposed
- Exposure potential must explicitly be considered when prioritizing chemicals for further study under the Toxic Substances Control Act (TSCA)
- Tools being developed by EPA ORD help us to characterize chemical use and thus potential exposure to many chemicals along various exposure pathways

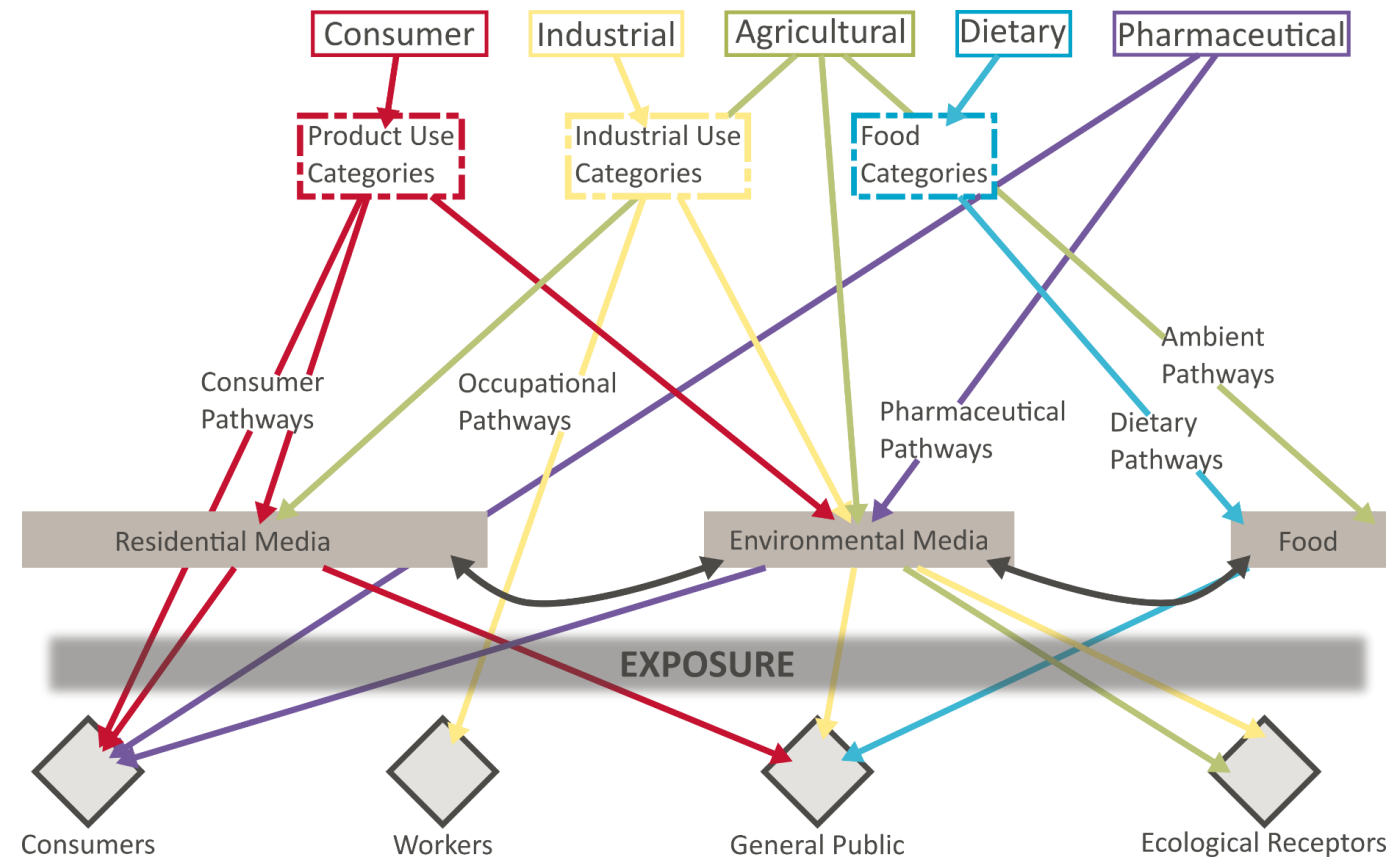
Chemical Exposure



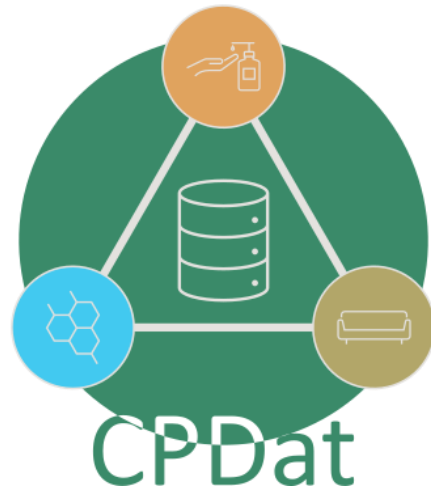
Problem

- We can trace a chemical's exposure pathways by examining its use in various commercial sectors
- Commercial sector of use allows us to then define potential pathways associated with a chemical (potential chemical release, media occurrence, and ultimate receptor exposure)
- Use data (both qualitative and quantitative) are needed to inform models for various pathways

Exposure Pathways



EPA's Chemicals and Products Database



- The Chemicals and Products Database (CPDat) is an effort to organize and disseminate information about how **chemicals are used in commerce**, including consumer products, to inform exposure assessment
 - Entire database is currently available for download (set of .xlsx files)
 - Summary information from database is available from EPA's [CompTox Chemicals Dashboard](#)
- ORD is collecting, curating, and storing large amounts of publicly available chemical use information to support the expansion of CPDat
 - **450K+** documents from internet sites, government or industry reports, manufacturer data sheets, and more
 - **3.4M** chemical records containing qualitative and quantitative information

[nature](#) > [scientific data](#) > [data descriptors](#) > article

[Open Access](#) | [Published: 10 July 2018](#)

The Chemical and Products Database, a resource for exposure-relevant data on chemicals in consumer products

[Kathie L. Dionisio](#), [Katherine Phillips](#), [Paul S. Price](#), [Christopher M. Grulke](#), [Antony Williams](#), [Derya Biryol](#), [Tao Hong](#) & [Kristin K. Isaacs](#) 

[Scientific Data](#) **5**, Article number: 180125 (2018) | [Cite this article](#)

30k Accesses | **92** Citations | **21** Altmetric | [Metrics](#)

CPDat Improvements

CPDat versions 1 – 3

Journal of Exposure Science and Environmental Epidemiology (2017) 00, 1–7
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www.nature.com/jes

ORIGINAL ARTICLE
Consumer product chemical weight fractions from ingredient lists

Kristin K. Isaacs¹, Katherine A. Phillips¹, Derya Biryol^{1,2}, Kathie L. Dionisio³ and Paul S. Price³

Development of a consumer product ingredient database for chemical exposure screening and prioritization

M.-R. Goldsmith^{4,5}, C.M. Grulke⁶, R.D. Brooks⁶, T.R. Transue⁶, Y.M. Tan⁶, A. Frame^{4,5}, P.P. Egeghy⁴, R. Edwards⁴, D.T. Chang⁴, R. Tornero-Velez⁴, K. Isaacs⁴, A. Wang^{4,5}, J. Johnson⁴, K. Holm⁴, M. Reich⁴, J. Mitchell⁴, D.A. Vallerio⁴, L. Phillips⁴, M. Phillips⁴, J.F. Wambaugh⁴, R.S. Judson⁴, T.J. Buckley⁴, C.C. Dary⁴

Ingredient weight fraction data from previous EPA data collection efforts

Contents lists available at ScienceDirect

Toxicology Reports

ELSEVIER journal homepage: www.elsevier.com/locate/toxrep

Exploring consumer exposure pathways and patterns of use for chemicals in the environment

Kathie L. Dionisio⁴, Alicia M. Frame^{6,1}, Michael-Rock Goldsmith^{4,2}, John F. Wambaugh¹, Alan Liddell^{1,3}, Tommy Cathey¹, Doris Smith¹, James Vail¹, Alexi S. Ernstoff¹, Peter Fantke¹, Olivier Jolliet¹

General use developed around consumer exposure

Green Chemistry

PAPER

View Article Online | View Journal | View Table of Contents

High-throughput screening of chemicals as functional substitutes using structure-based classification models†

Katherine A. Phillips^{4,5}, John F. Wambaugh¹, Christopher M. Grulke⁶, Kathie L. Dionisio¹ and Kristin K. Isaacs¹

Functional use terminology and models focused on consumer/personal care products

CPDat version 4

Review Article | Published: 26 November 2022

The chemical landscape of high-throughput new approach methodologies for exposure

Kristin K. Isaacs¹, Peter Egeghy², Kathie L. Dionisio³, Katherine A. Phillips⁴, Angelika Zidek⁵, Caroline Bing⁶, Jon R. Sobus⁷, Elin M. Ulrich⁸, Barbara A. Wetmore⁹, Antony J. Williams¹⁰ & John F. Wambaugh¹¹

Journal of Exposure Science & Environmental Epidemiology 32, 820–832 (2022) | [Cite this article](#)

Inclusion of industrial products and processes and consumer articles in addition to more consumer formulations

Article | Published: 11 November 2019

Establishing a system of consumer product use categories to support rapid modeling of human exposure

Kristin K. Isaacs¹, Kathie L. Dionisio², Katherine A. Phillips³, Charles Bevington⁴, Peter Egeghy⁵ & Paul S. Price⁶

Journal of Exposure Science & Environmental Epidemiology 30, 171–183 (2020) | [Cite this article](#)

Article | Published: 11 November 2019

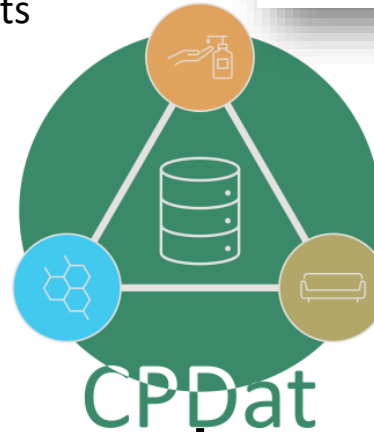
Environmental mixtures and breast cancer: identifying co-exposure patterns between understudied vs breast cancer-associated chemicals using chemical inventory informatics

Lauren E. Koval¹, Kathie L. Dionisio², Katie Paul Friedman³, Kristin K. Isaacs⁴ & Julia E. Rager⁵

Journal of Exposure Science & Environmental Epidemiology 32, 794–807 (2022) | [Cite this article](#)

Standardized taxonomy of:

- Product Use Categories (PUCs)
- Function Categories (FCs)
- List Presence Keywords



Chemical Use Definitions

- **Commercial Sector Use:**

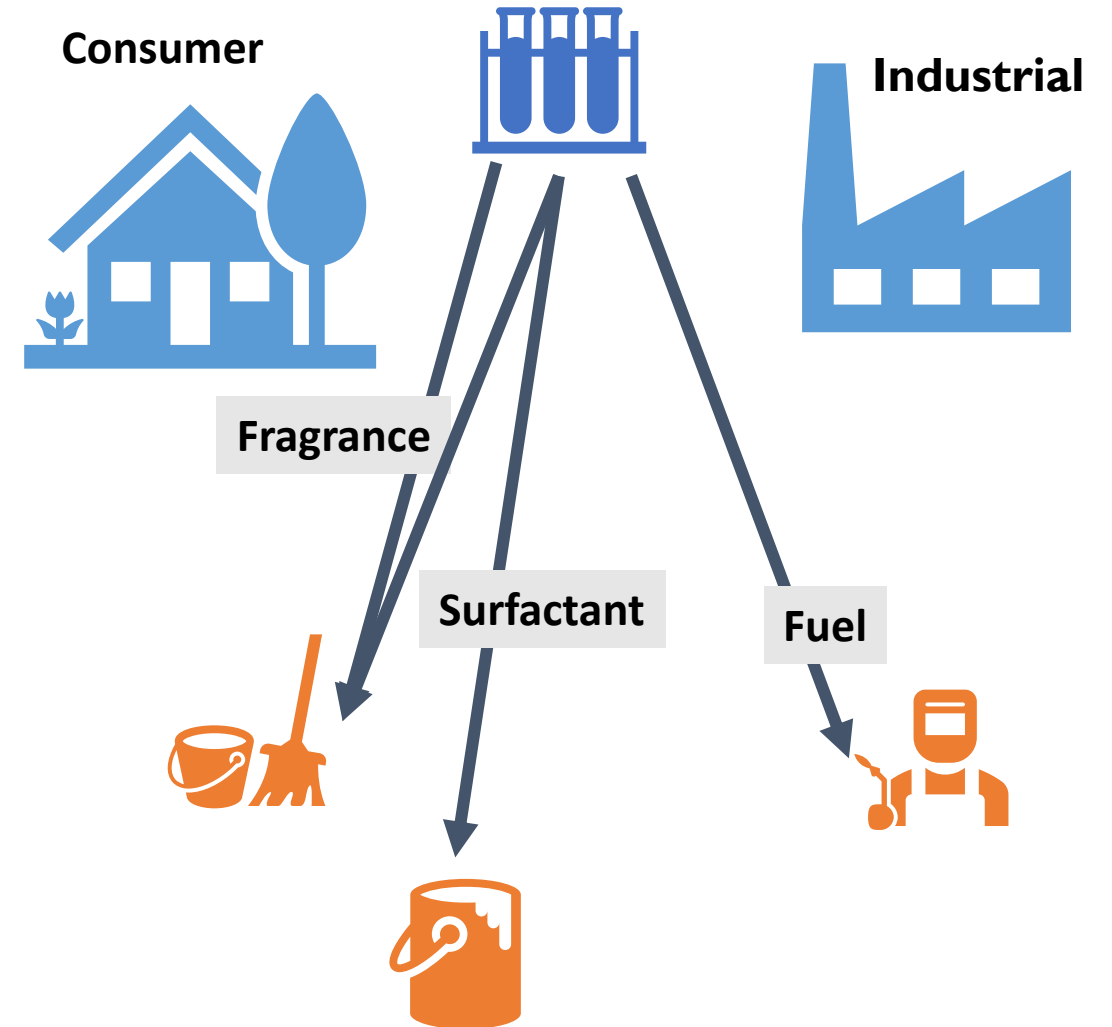
Which groups use a chemical (i.e., industrial process *versus* consumer product)

- **End Use:**

The specific commercial sector products or processes in which a chemical is used

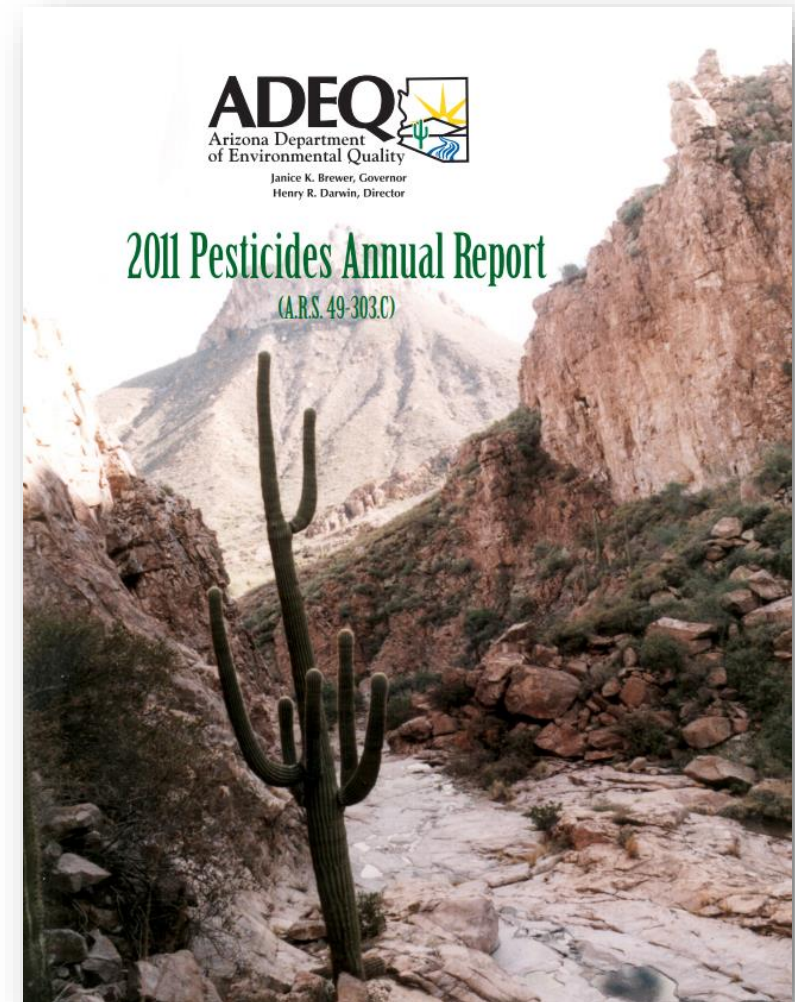
- **Functional Use:**

Roles a chemical can serve due to its structure and properties



Chemical Use Types in CPDat

- Commercial Sector Use
 - Lists of chemicals used in different commercial or industrial sectors
 - Organized by **Chemical List Presence Keywords**



Chemical Use Types in CPDat

- Commercial Sector Use
 - Lists of chemicals used in different commercial or industrial sectors
 - Organized by **Chemical List Presence Keywords**
- End Use
 - Use in particular products or product types
 - Organized by **Product Use Categories (PUCs)**

Safety Data Sheet	
1. Identification	
2. Hazard(s) Identification	
3. Composition/Information on Ingredients	
4. First-aid Measures	
5. Firefighting Measures	
6. Accidental Release Measures	
7. Handling and Storage	
8. Exposure Controls/Personal Protection	
9. Physical and Chemical Properties	
10. Stability and Reactivity	
11. Toxicological Information	

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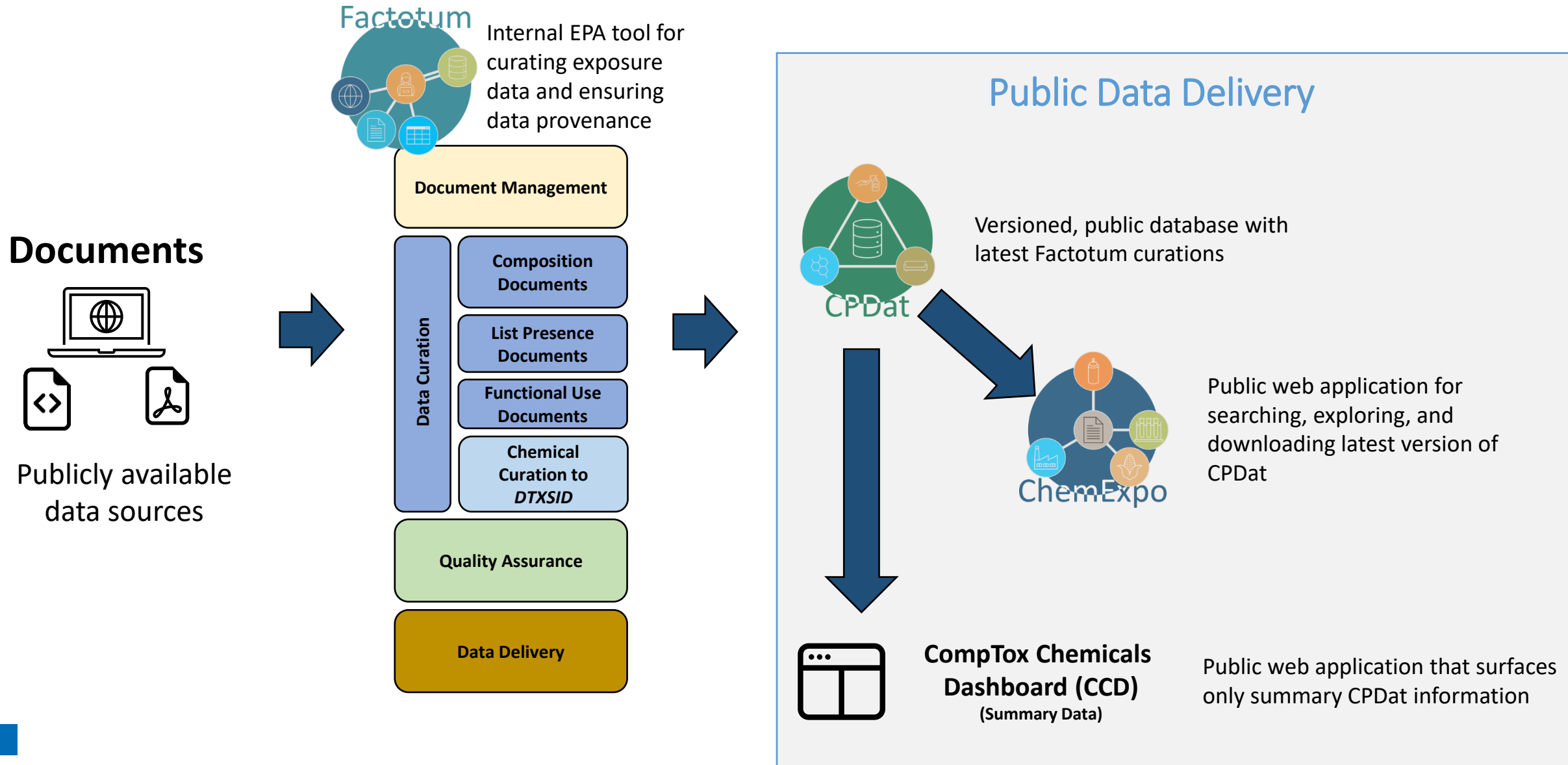
Safety Data Sheet	
1. Identification	
2. Hazard(s) Identification	
3. Composition/Information on Ingredients	
4. First-aid Measures	
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6. Accidental Release Measures	
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8. Exposure Controls/Personal Protection	
9. Physical and Chemical Properties	
10. Stability and Reactivity	
11. Toxicological Information	

Chemical Use Types in CPDat

- Commercial Sector Use
 - Lists of chemicals used in different commercial or industrial sectors
 - Organized by **Chemical List Presence Keywords**
- End Use
 - Use in particular products or product types
 - Organized by **Product Use Categories (PUCs)**
- Functional use
 - Role the chemical plays in different consumer products or industrial processes
 - Organized by OECD's **Function Categories (FCs)**

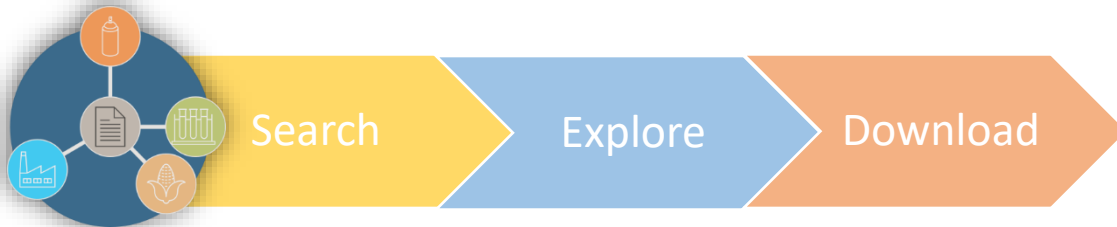
Ingredients		
ingredient	function	CAS #
water	diluent + solvent	7732-18-5
sodium lauryl sulfate	surfactant (cleaning agent)	68585-47-7
lauramine oxide	surfactant (cleaning agent)	1643-20-5
decyl glucoside	surfactant (cleaning agent)	68515-73-1
lauryl glucoside	surfactant (cleaning agent)	110615-47-9
agrumex	fragrance	88-41-5
benzyl acetate	fragrance	140-11-4
cyclamen aldehyde	fragrance	103-95-7
dihydro myrcenol	fragrance	18479-58-8
dipropylene glycol	fragrance	25265-71-8
hedione	fragrance	24851-98-7
hexyl cinnamic aldehyde	fragrance [†]	101-86-0
iso e super	fragrance	54464-57-2
linalool	fragrance [†]	78-70-6
linalyl acetate	fragrance	115-95-7
phenyl ethyl alcohol	fragrance	60-12-8
ethanol	solvent	64-17-5
glycerin	moisturizer	56-81-5
sodium chloride	thickener	7647-14-5
citric acid	pH adjuster	77-92-9
methylchloroisothiazolinone	preservative	26172-55-4
methylisothiazolinone	preservative	2682-20-4
colorant	colorant	CBI

Overview of CPDat Pipeline



ChemExpo Knowledgebase

- Provides public access to CPDat V4
- Built on Factotum's search and visualization functionality
- Search capability by extracted text, product or product category name, chemical name, and function
- Interactive data exploration via unique landing pages for
 - Product category
 - Chemical
 - Function category
- Interactive data downloads



Welcome to ChemExpo Knowledgebase

ChemExpo is an interactive web application for exploring chemical data, curated from public documents, relevant to exposure assessment. ChemExpo currently surfaces data collected by EPA about how chemicals are used in commerce and how they occur in consumer and industrial products; these data are collectively known as the Chemicals and Products Database (CPDat). ChemExpo provides tools for exploring and downloading these data, which include consumer product composition, chemical functional use, and general chemical use information. The ChemExpo team actively works to curate these data to specific consumer and occupational product categories, to chemical functional uses, and to substance identifiers (DTXSIDs) used by EPA and the CompTox Chemicals Dashboard.

Explore Products

Products Linked to PUCs

Formulation PUCs

General Category - Product Family - Product Type

ChemExpo Get Data Explore Products Search ChemExpo Comment

Cleaning products and household care
laundry and fabric treatment / fabric softener

Kind Formulation

Description products used to improve tactile properties of fabrics that are added to the rinse water of clothes washers (excluding dryer sheets)

Assumed Attributes
No assumed attributes are associated with this PUC.

Allowed Attributes
child liquid

Additional Statistics
Products 802
Cumulative Products 802
Documents 802
Curated Chemicals 227

Linkages to Other Taxonomies
No taxonomies are linked to this PUC.

Products Documents Chemicals

Functional Uses Associated with "Cleaning products and household care - laundry and fabric treatment"

Document	Chemical Name	CAS	Reported Functional Use	Harm
all fabric softener liquid - free clear 32oz	Water	7732-18-5	process aid	Process specific
all fabric softener liquid - free clear 32oz	Calcium chloride	10043-52-4	process aid	Process specific
all fabric softener liquid - free clear 32oz	Dimethyldioctadecylammonium chloride	107-64-2	softening agent	Softener
all fabric softener liquid - free clear 32oz	Glutaraldehyde	111-30-8	Preservative	Preservative

Additional Statistics
Products 2294
Documents 2551
Chemicals 276

Products Documents Chemicals

Chemicals Associated with "Preservative"

DTXSID	Curated CAS	Curated Name
DTXSID001018757	27630-82-4	2,4-Imidazolidinedione, (hydroxymethyl)-5,5-dimethyl-
DTXSID001023502	4048-02-0	Ethyl ferulate
DTXSID0020329	1897-45-6	Chloroethanol
DTXSID0020941	7632-00-0	Sodium nitrite

lime remover (16)
carpet and floor (579)
dishwasher and dishes (832)
lamp oil/lighter fluid (66)
shoes (41)
bathroom (280)
oven (57)
replace (1)
laundry and fabric treatment (2370)
general household cleaning (1847)
hand cleaner (36)
dryer (88)
dryer (88)

ChemExpo Knowledgebase Demonstration

ChemExpo Homepage

[ChemExpo](#)[Get Data](#)[Explore Products](#)[User Guide](#)[Contact](#)

Welcome to ChemExpo Knowledgebase

ChemExpo is an interactive web application for exploring chemical data, curated from public documents, relevant to exposure assessment. ChemExpo currently surfaces data collected by EPA about how chemicals are used in commerce and how they occur in consumer and industrial products; these data are collectively known as the Chemicals and Products Database (CPDat). ChemExpo provides tools for exploring and downloading these data, which include consumer product composition, chemical functional use, and general chemical use information. The ChemExpo team actively works to curate these data to specific consumer and occupational product categories, to chemical functional uses, and to substance identifiers (DTXIDs) used by EPA and the CompTox Chemicals Dashboard.

This beta version of ChemExpo (v0.1) is currently undergoing review and feedback from stakeholders. Its data and functionality are subject to change.



Getting Started

- Use the Search Bar above to search chemical names and identifiers, product names and categories, or documents for a specific text string.
- Use the [Explore Products](#) tab to interactively explore the ChemExpo Product Use Category (PUC) Hierarchy
- Browse the available [Product Use Categories](#)
- Browse the available [Chemical List Presence Keywords](#)
- Browse the available [Chemical Function Categories](#)

Beta Release Notes

Application version:

0.1.1 (July 2023)

Data released:

4.0.0-alpha.2 (September 2023)

ChemExpo Knowledgebase

Search for “Cleaner”

The screenshot shows the ChemExpo Knowledgebase interface with a search for "cleaner". The search results are displayed under the "Products" tab, showing 7036 results. A callout box explains that the Products tab returns results for product names, descriptions, and manufacturers. The results list several products, including "pro-tek spotter cleaner", "easy does it all purpose cleaner", "Woolite by Dry Cleaner's Secret Dry Clean at Home", "Woolite by Dry Cleaner's Secret Dry Clean at Home, Fragrance Free", "con clear cc101", "Berryplus Liquid Laundry Soap", "pen a seal", and "blue gold industrial cleaner".

ChemExpo Get Data Explore Products cleaner ? ⓘ User Guide Contact

Documents 7398 Products 7036 Product Use Categories 45 Chemicals 1 Chemical List Keywords 8 Function Categories 1

Filter

Product brand

- LYSOL 175
- CRC 493
- Zep (B2B) 198
- Zep (Retail) 98
- Zep (Professional) 72
- Mrs. Meyer's Clean Day 28
- method 42
- Pledge 28
- Misty 56
- Scrubbing Bubbles 29

Product manufacturer

- RB 198
- Zep 424
- CRC 523
- SC Johnson 187
- Simple Green 83
- Caldrea Company 32
- method products pbc 24
- kimball midwest 28
- Sprayon Products Group 78
- GOJO INDUSTRIES INC 48

Category

'cleaner' found in the product name, description, brand name, or manufacturer of 7036 products in 0.027 seconds.

pro-tek spotter cleaner
Manufacturer: CLEANER COMPANY

easy does it all purpose cleaner
Manufacturer: CLEANER COMPANY

Woolite by Dry Cleaner's Secret Dry Clean at Home
Brand name: Woolite by Dry Cleaner's Secret
Manufacturer: Woolite by Dry Cleaner's Secret

Woolite by Dry Cleaner's Secret Dry Clean at Home, Fragrance Free
Brand name: Woolite by Dry Cleaner's Secret
Manufacturer: Woolite by Dry Cleaner's Secret

con clear cc101
Manufacturer: CLEANER COMPANY

Berryplus Liquid Laundry Soap
Manufacturer: Cleaner Innovations

pen a seal
Manufacturer: CLEANER COMPANY

blue gold industrial cleaner

Chemical Detail Page: N-Methyl-2-Pyrrolidone

N-Methyl-2-Pyrrolidone

DTXSID6020856

872-50-4

Explore products containing this chemical. Use each PUC to access its detailed chemical and product information. Note: the high-level PUCs link to products that contain this chemical.

Formulation PUCs

General Category - Product Family - Product

- **Cleaning products and household care**
- **Electronics/small appliances**
- **Food and drug**
- **Home maintenance**
- **Landscape/yard**
- **Personal care**
- **Pesticides**
- **Sports equipment**
- **Vehicle**

Filter

Products

Products

Products Containing "N-Methyl-2-pyrrolidone"

Show 10 entries

Product	Manufacturer	Brand
1t_aquazar gloss	UNITED GILSONITE LABS	
063031 new safe & easy gloss_031	DEFT INC	
back to nature strip-tox	DYNACRAFT INDUSTRIES INC.	
magic strip remover		
safety-kleen immersion cleaner and cold parts cleaner solvent	safety-kleen systems, inc.	
699/6861/9699 immersion cleaner & cold parts cleaner	SAFETY-KLEEN CORP	
GRAFFITI REMOVER, 12 WT OZ	CRC	CRC

Documents

Function

Products

Documents

Function

Functions Associated with "N-Methyl-2-pyrrolidone"

Show 10 entries

Search:

Show All Functions

Download Functions

Data Type	Document	Reported Function	Harmonized Function
Chemical presence list	Survey of chemical substances in cleaning products for ovens, cookers and ceramic cooktops Table 4.4	solvent	Solvent
Chemical presence list	Survey of chemical substances in cleaning products for ovens, cookers and ceramic cooktops Table 4.2	solvent	Solvent
Composition	ardex mc rapid resin	resin	Binder
Composition	scuffmaster clear pearl coat	thinner	Diluent
Composition	clean ems graffitti rem towel	solubilizer	Solubility enhancer
Composition	EL2846 NON-CHLORINATED ELECTRICAL DEGREASER	solvents	Solvent
Composition	EL2846 NON-CHLORINATED ELECTRICAL DEGREASER	solvents	Solvent
Composition	EL2846 NON-CHLORINATED ELECTRICAL DEGREASER	solvents	Solvent
Composition	EL2846 NON-CHLORINATED ELECTRICAL DEGREASER	solvents	Solvent

Explore Products

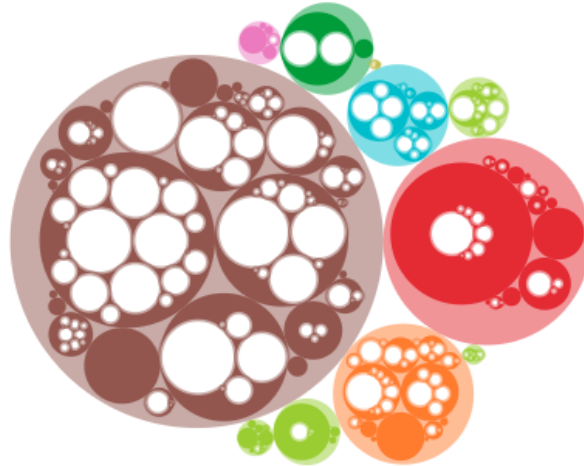
Explore Products

Explore data for products linked to [Product Use Categories \(PUCs\)](#).

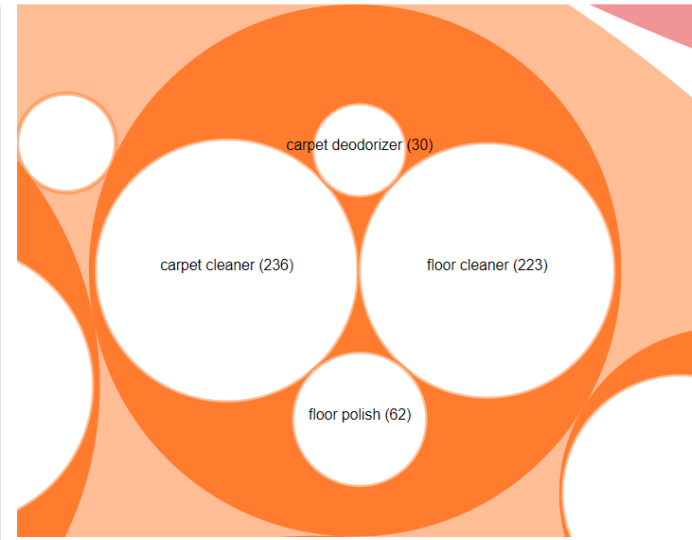
Click the info button (i) next to each PUC to access its detailed chemical and product data.

Note: the high-level PUCs link to products that can't be further categorized; drill down to access products with refined PUC categorizations.

Formulation PUCs	
<i>General Category - Product Family - Product Type</i>	
> Arts and crafts/office supplies <i>i</i>	2583
> Sports equipment <i>i</i>	68
> Cleaning products and household care <i>i</i>	13160
> Electronics/small appliances <i>i</i>	3788
> Home maintenance <i>i</i>	29653
> Landscape/yard <i>i</i>	927
> Personal care <i>i</i>	101525
> Pesticides <i>i</i>	1328
> Pet and animal care <i>i</i>	218
> Vehicle <i>i</i>	5656
> Food and drug <i>i</i>	3087



Formulation PUCs	
<i>General Category - Product Family - Product Type</i>	
> Arts and crafts/office supplies <i>i</i>	2583
> Sports equipment <i>i</i>	68
> Cleaning products and household care <i>i</i>	13160
air freshener <i>i</i>	2242
> bathroom <i>i</i>	742
> carpet and floor <i>i</i>	576
carpet cleaner <i>i</i>	236
carpet deodorizer <i>i</i>	30
floor cleaner <i>i</i>	223
floor polish <i>i</i>	62
> dishwasher and dishes <i>i</i>	914
drain products <i>i</i>	274
> general household cleaning <i>i</i>	2798



PUC detail

PUC Detail Page: Floor Cleaner

[← Back to PUC list](#)

Cleaning products

carpet and floor / floor

Kind Formulation
Description hard floor cleaners, including pre-

Assumed Attributes
No assumed attributes are associated with this

Additional Statistics

Products 223
Cumulative Products 223
Documents 222
Curated Chemicals 231

Products

Products containing chemicals assigned to "Cleaning products and household care - carpet and floor -"

Show 10 entries

Search:

[Download Products](#)

Product	Brand Name	Manufacturer
Orange Glo 4-in-1 Hardwood Clean and Shine	Orange Glo	Church & Dwight
Orange Glo Everyday Hardwood Floor Cleaner	Orange Glo	Church & Dwight
Orange Glo Hardwood Floor Refinisher	Orange Glo	Church & Dwight

Products

Documents

Chemicals

Functions

Chemicals Associated with "Cleaning products and household care - carpet and floor - floor cleaner"

Show 10 entries

Search:

DTXSID	Curated CAS	Curated Chemical
DTXSID6026296	7732-18-5	Water
DTXSID2034259	2682-20-4	2-Methoxyethanol
DTXSID8026727	106-24-1	(2E)-3,7-Dimethyl-2-octene
DTXSID50105933	110615-47-9	D-Glucosylglycerol
DTXSID6024836	5392-40-5	3,7-Dimethyl-2-octene
DTXSID5029633	1310-58-3	Potassium hydroxide
DTXSID2029612	138-86-3	Limonene
DTXSID70872594	68515-73-1	D-Glucosylglycerol
DTXSID3020332	77-92-9	Citric acid
DTXSID3026726	106-22-9	Citronellol

Showing 1 to 10 of 231 entries

Products

Documents

Chemicals

Functions

Functions Associated with "Cleaning products and household care - carpet and floor - floor cleaner"

Show 10 entries

Search:

[Download All Functions Associated with PUC](#)

Classification Method	Document	Chemical Name	CAS	Reported Function	Harmonized Function
Composition	Pledge Revive It Multisurface Floor Finish	Proprietary Wetting Agent		wetting agent	Wetting agent (non-aqueous)
Composition	Pledge FloorCare Wood Concentrated Cleaner (Interruptido)	Hydroxyethylcellulose	9004-62-0	Thickener	Thickening agent
Composition	Orange Glo Everyday Hardwood Floor Cleaner	c8-10 alkyl glucoside		surfactant-cleaning agent	Surfactant (surface active agent)
Composition	Orange Glo Everyday Hardwood Floor Cleaner	c6-12 alcohol ethoxylate		surfactant-cleaning agent	Surfactant (surface active agent)
Composition	Orange Glo Everyday Hardwood Floor Cleaner	Sodium octyl sulfate	142-31-4	surfactant-cleaning agent	Surfactant (surface active agent)
Composition	Pine-Sol Wet Floor Wipes Lemon Fresh	c10-12 alcohol ethoxylates		surfactant	Surfactant (surface active agent)
Composition	Pine-Sol Wet Floor Wipes Lemon Fresh	sodium c14-17 sec-alkyl sulfonate		surfactant	Surfactant (surface active agent)
Composition	Original Pine-Sol Wet Floor Wipes	sodium c14-17 sec-alkyl sulfonate		surfactant	Surfactant (surface active agent)
Composition	Original Pine-Sol Wet Floor Wipes	c10-12 alcohol ethoxylates		surfactant	Surfactant (surface active agent)
Composition	cif floor wipes	Coconut dimethyl amine oxide	61788-90-7	surfactant	Surfactant (surface active agent)

Showing 1 to 10 of 679 entries

Product Ingredients

External link to original document (if available)

ChemExpo Get Data Explore Products Search ChemExpo User Guide Contact

Orange Glo Everyday Cleaner Hardwood & Lamin...

Church & Dwight Co., Inc.

Church and Dwight
Church and Dwight Ingredient Disclosures Jan 2020
Composition : ingredient disclosure
Cleaners

Orange Glo Everyday Cleaner Hardwood & Laminate Floor

Reported Chemical Name: d-Limonene Reported CAS: 5989-27-5
Curated Chemical Name: **D-Limonene** Curated CAS: 5989-27-5 **DTXSID1020778**

No Composition Data
Reported: Fragrance
Harmonized: Fragrance
Last updated: 3 years, 9 months ago

Reported Chemical Name: Dipropylene glycol Reported CAS: 25265-71-8
Curated Chemical Name: **Dipropylene glycol** Curated CAS: 25265-71-8 **DTXSID0027856**

No Composition Data
Reported: Fragrance
Harmonized: Fragrance
Last updated: 3 years, 9 months ago

Reported Chemical Name: Water Reported CAS: 7732-18-5
Curated Chemical Name: **Water** Curated CAS: 7732-18-5 **DTXSID6026296**

No Composition Data
Reported: solvent
Harmonized: Solvent
Last updated: 3 years, 9 months ago

Reported Chemical Name: Lauryl glucoside Reported CAS: 110615-47-9
Curated Chemical Name: **D-Glucopyranose, oligo...** Curated CAS: 110615-47-9 **DTXSID50105933**

No Composition Data
Reported: surfactant
Harmonized: Surfactant (surface active agent)

Linked Products
[Orange Glo Everyday Cleaner Hardwo...](#)

Extracted Text

Product name
Orange Glo Everyday Cleaner Hardwood & Laminate Floor

Document date
9/25/2019

Revision number
...No value

CHD(NYSE) \$

COMPANY OUR BRANDS CAREERS RESPONSIBILITY

Ingredient Disclosure

CHURCH & DWIGHT CO., INC.
PRODUCT INGREDIENT COMMUNICATION FORM

PRODUCT NAME: Orange Glo™ Everyday Cleaner Hardwood & Laminate Floor
CATEGORY: Cleaners
MATERIAL NUMBER: 4200164

INGREDIENTS:

Intentionally Added Ingredients	CAS #	Function	On a Designated List?
Water	7732-18-5	Solvent	No
Lauryl glucoside	110615-47-9	Surfactant	No
Capryl/capryl glucoside	68515-73-1	Surfactant	No
Cocamidopropylamine oxide	68155-09-9	Surfactant	No
Cocamidopropyl dimethylamine	68140-01-2	Surfactant	No
Benzisothiazolinone	2634-33-5	Preservative	No
Methylisothiazolinone	2682-20-4	Preservative	No
Triethanolamine	102-71-6	ph adjuster	No
Fragrances	See below	Fragrance	See below

Fragrance Components at or Above 100 ppm or on a Designated List	CAS #	On A Designated List?
Dipropylene glycol	25265-71-8	CA Non-Cancer Hazards
d-Limonene	5989-27-5	EU Fragrance Allergens.

CompTox Chemicals Dashboard v2.2.1 Home Search Lists About Tools Submit Comments Search all data

D-Limonene
5989-27-5 | DTXSID1020778
Searched by DTXSID1020778

Chemical Details

CC1=CC=C(C=C1)C=C

Quality Control Notes

Intrinsic Properties

- Molecular Formula: C₁₀H₁₆ **VIEW FILE** **VIEW ALL CHEMICALS**
- Average Mass: 136.238 g/mol **VIEW MASS DISTRIBUTION**
- Monoisotopic Mass: 136.125201 g/mol

Structural Identifiers

Linked Substances


Presence in Lists

Record Information

Chemical Details
Executive Summary
Physchem Prop.
Env. Fate/Transport
Hazard Data
Safety & GHS Data
ADME & IVIVE
Exposure
Bioactivity
GenRA
ACToR
Literature
Links
Comments

Link to other data (like toxicity data) in CompTox Dashboard

Download Data

ChemExpo **Get Data** Explore Products ? ⓘ User Guide  Contact

Get Data





Download Metadata		Download Bulk Data	
Download PUCs	Product Use Categories	Bulk Download List Presence Data	
Download PUC Attributes		Bulk Download Function Data	
Download List Presence Keywords	List Presence Keywords	Bulk Download Composition Data	
Download Function Categories	Function Categories		

Explore Function Categories


Function Categories

Functional Use Categories are harmonized identifiers describing the function a specific chemical serves (for example: fragrance, cleaning agent, filler, etc.). Functional uses reported by source documents are curated to harmonized function categories. In most cases, these are internationally recognized categories and definitions developed by the Organization for Economic Co-operation and Development (OECD). These standardized functional uses contain explicit definitions and exclusions, to reduce ambiguity in category assignment. New function categories will be added as needed to accommodate novel uses. These are indicated as internal to EPA through the use of (EPA) within the category name. Function Categories are harmonized identifiers describing the function a specific chemical serves (for example: fragrance, cleaning agent, filler, etc.). Chemical functions reported by source documents are curated to harmonized function categories. In most cases, these are internationally recognized categories and definitions developed by the Organization for Economic Co-operation and Development (OECD). These standardized functions contain explicit definitions and exclusions, to reduce ambiguity in category assignment. New function categories are added as needed to accommodate novel uses. These are indicated as internal to EPA through the use of (EPA) within the category name. Data on the functions of chemicals in consumer products were originally developed and released as ORD's Functional Use (FuSE) database and are now maintained within CPDat. These data form the basis for ORD's Quantitative Structure Use Relationship (QSUR) models (Phillips et al. (2016)). See User Guide Section 'Explore Chemical Functions' for more information.


[Reset Filters](#)

Function Category ↑	Description	Product ...	Doc...	View Detail
Abrasive	Chemical substance used to abrade, smooth, or polish an object. Used to smooth, scour, scrub, clean, wear down, or polish surfaces by rubbing against the surface and removing imperfections from a surface. May be used in processes such as sputter etching and physical dry etching. Also referred to as a grinding agent; usually in the form of fine powders of hard substances; e.g., sandstones; pumice; quartz; silicates; aluminium oxides; and glass. See closely related: etching agent.	106	567	
Absorbent	Chemical substance used to retain other substances by assimilation. Also referred to as an antiseptic. See closely related: adsorbent.	85	316	
Adhesion/cohesion promoter	Chemical substance, either inorganic or organic, natural or synthetic, used to join opposite surfaces to each other; to promote bonding between other substances; to promote adhesion of surfaces; or to fasten other materials together. Generally applied from a solvent solution and allowed to dry on the two facing surfaces. Also referred to as glue; paste; coupling agent; gum; adhesive cement; bonding agent; inner coating; and anchor coating.	302	1970	
Adsorbent	Chemical substance used to retain other substances by accumulation on their surface; Exhibits a large surface area which can attract dissolved or finely dispersed substances from another medium. See closely related: absorbent; dehydrating agent.	13	13	

[Reset Filters](#)

Function Category	Description	Product Count	Document Count	View Detail
Flame retardant	Chemical substance that alters the normal degradation or combustion processes of plastics, rubbers, textiles, papers and woods, etc. Used on the surface of or incorporated into combustible materials to reduce or eliminate their tendency to ignite when exposed to heat or a flame for a short period of time. Used to raise the ignition point; and/or to slow down or prevent combustion.	242	1210	

 1 to 1 of 1 

 Page Size: 50 

Function Detail Page: Flame Retardant

[← Back to FC list](#)

Flame retardant

Description Chemical substance that alters the normal degradation or combustion of the surface of or incorporated into combustible materials to reduce the rate of or prevent the surface from burning for a short period of time. Used to raise the ignition point; and/or to reduce the rate of or prevent the surface from burning for a short period of time.

Additional Statistics

Products	242
Documents	1210
Chemicals	216

Products

Products containing chemicals assigned to "Flame retardant"

Show entries Search:

Product Name	Data Document
voxflor greenpad	voxflor greenpad
voxflor greenpad	voxflor greenpad
EnviroScreen Optimum -Verosol	EnviroScreen_Optimum_Verosol_-2017-03-10
OmniaScreen-Verosol	OmniaScreen-Verosol_-2017-03-10
Panduit Category 6A Riser Shielded Cable PUF6X04-Panduit	Panduit_Category_6A_Riser_Shielded_Cable_PUF6X04-Panduit_2016-07-20
Preserved Wall Gardens MDF Backerboard-Garden On The Wall	Preserved_Wall_Gardens_MDF_Backerboard-Garden_On_The_Wall-2017-05-04

Products

Documents

Chemicals

Chemicals Associated with "Flame retardant"

Show entries

Search:

[Download Chemicals Associated with Function](#)

DTXSID	Curated CAS	Curated Name
DTXSID001014486	7789-82-4	Calcium molybdate(VI)
DTXSID001018214	12251-53-5	Aluminum sodium hydroxide (NaAl(OH)4)
DTXSID0020494	756-79-6	Dimethyl methylphosphonate
DTXSID0024553	123-77-3	Azodicarbonamide
DTXSID0050471	7727-43-7	Barium sulfate
DTXSID0052679	24623-77-6	Aluminium hydroxide oxide
DTXSID0052700	3072-84-2	2,2'-[(1-Methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxymethylene]]bis[oxirane]
DTXSID0052708	39635-79-5	4,4'-Sulphonylbis[2,6-dibromophenol]
DTXSID0058300	12767-90-7	Boron zinc oxide (B6Zn2O11)
DTXSID0058691	19186-97-1	Tris(tribromoneopentyl)phosphate

Showing 1 to 10 of 216 entries

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ChemExpo User Guide

4 Search



ChemExpo Knowledgebase User Guide

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7 Explore Chemical Function

8 Explore General Chemical Uses

9 Explore Data Documents



Throughout ChemExpo, click on the Info button for more information about a feature or

How do I use the Search functionality in ChemExpo?

ChemExpo uses a single general search box that is located in the main navigation bar. Enter any search query by typing into the search box and pressing the **Enter** key. ChemExpo returns information related to documents, specific products, PUCs, FCs, chemical functions, and chemical uses. Search results are returned on different tabs (one for each type of information). Users can navigate through the search results on different data fields, as described in the [Table 4.1](#).

Documents
919

Products
1362

Product Use Categories
1

'plastic' found in the extracted text of 919 documents in 0.032 seconds.

PLASTIC MATERIAL

Raw chemical name: plastic

Number of products related to document: 1

NON-ASBESTOS GASKET MATERIAL, VARROIOUS

Raw chemical name: plastic

Number of products related to document: 1

Filter

Group type

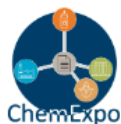
Composition 974

Chemical presence list 27

Functional use 18

Apply

433,901



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13 Frequently Asked Questions (FAQs)

Table of contents

13.1 Data and Maintenance Issues

13.2 Usability Questions

13.1 Data and Maintenance Issues

Why can't ChemExpo provide the original Data Documents?

Why can't the data document be found at the link provided?

How often is ChemExpo updated?

What kind of updates are we planning in the future?

Where are the exposure predictions related to these chemicals?

Can I suggest a new source for Curation in ChemExpo?

Does ChemExpo contain information on exposure routes of specific products or product categories?

CPDat also contains predicted information on chemical function from Quantitative Structure-Use Relationships (QSURs). Are these predictions available via ChemExpo?

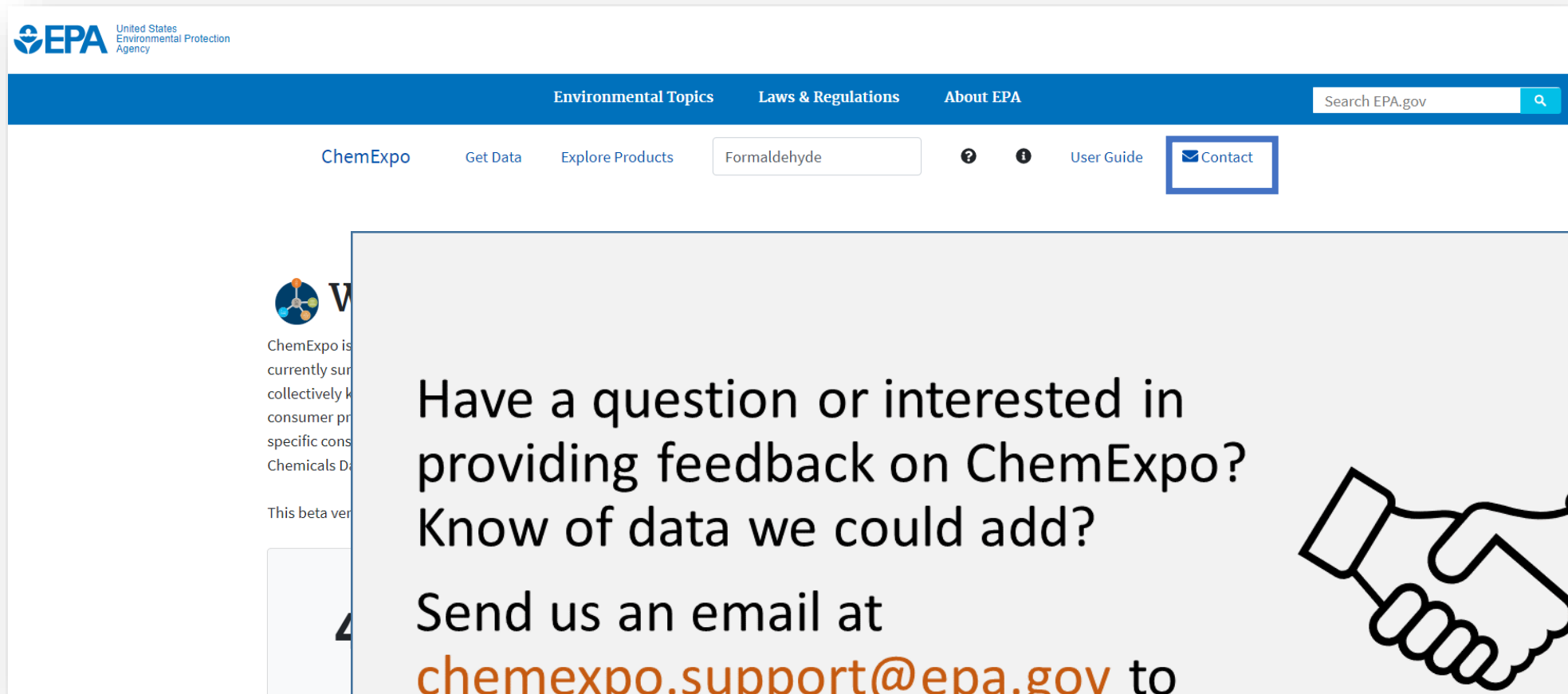
Why are there no chemicals cards for certain products?

Why are there duplicate product entries in ChemExpo?

13.2 Usability Questions

How can I search for Safety Data Sheets (SDSs) online from ChemExpo?

ChemExpo Support



ChemExpo is currently sur
collectively k
consumer pr
specific cons
Chemicals D
This beta ver

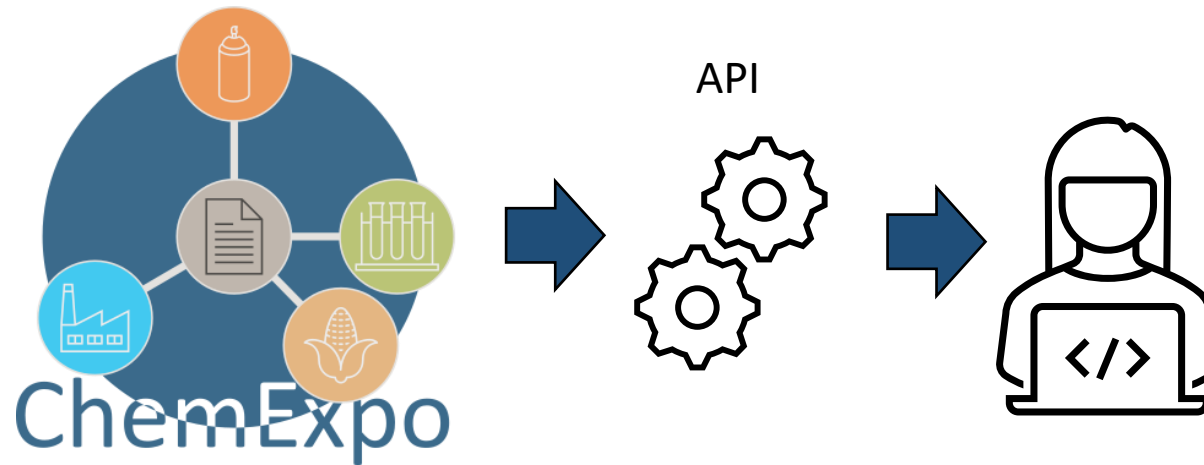
Have a question or interested in providing feedback on ChemExpo? Know of data we could add?

Send us an email at chemexpo.support@epa.gov to discuss!



Future Work

- Formal peer review of ChemExpo
- CPDat v4.0 and accompanying peer review manuscript
- Development and release of ChemExpo Application Programming Interfaces (APIs)



Impact

- CPDat and ChemExpo provide critical chemical use information that informs scoping and parameterization of both exposure assessments and model predictions
- Data from CPDat are being integrated with other exposure-relevant data streams, including monitoring and release data
- These data have been used to rapidly inform both EPA and State-level agency decision support workflows:
 - Identifying candidates for prioritization under various regulations (i.e., TSCA)
 - Scoring chemicals as contaminants of emerging concern in drinking water (Minnesota Department of Health, MDH)
 - Evaluating chemicals of concern to children under MDH's Toxic Free Kids initiative

Take Home Messages

- EPA ORD is collecting and curating data on chemical use from thousands of publicly available documents
- These data, collected into EPA's Chemical and Products Database (CPDat), provide critical information for informing chemical exposure and risk analyses
- The ChemExpo Knowledgebase provides these data in an accessible and robust form to EPA stakeholders, including the public

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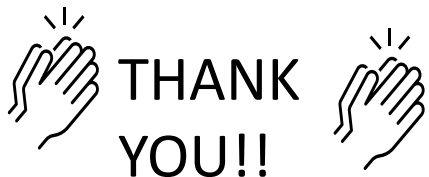
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